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APPLICATION NO	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO	CONFIRMATION NO
09 865,376	05 25 2001	Robert Arthur Black	10010261	3725

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EXAMINER

LUU, THANH X

ART UNIT PAPER NUMBER

2878

DATE MAILED: 07 18 2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/865,376

Applicant(s)

BLACK, ROBERT ARTHUR

Examiner

Thanh X Luu

Art Unit

2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 9-15 is/are rejected.
- 7) ☒ Claim(s) 5-8 and 16-19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 3, 2003 has been entered.

Claims 1-19 are currently pending.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-4 and 13-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Brueck et al. (U.S. Patent 5,426,498).

Regarding claims 1-4 and 13-15, Brueck et al. disclose (see Figure 3) a method and a surface (3) scanned by an optical sensor (at 6; CCD; see column 5, line 32) of a relative position (displacement) determinator, for use with a light source (10),

comprising: first regions (in 3) that reflect light beams from the light source toward the optical sensor, in the form of reflected light beams (4); and second regions (in 3) that reflect light from the light source away from the optical sensor, in the form of deflected light beams (5), the reflected light beams (4) from the first region form an image used by the relative position determinator to detect change in the position (displacement) of the optical sensor relative to the surface, wherein the first regions are located indiscriminately amidst the second regions (see random nooks and regions of 3 in Figure 3). The first and second regions are inherently specular since light is reflected or deflected from the regions. Brueck et al. further disclose (see Figure 3) the first regions are selected from a group consisting of depressions or protrusions.

4. Claims 9-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Tullis et al. (U.S. Patent 6,222,174).

Regarding claims 9-12, Tullis et al. disclose (see Figure 1) a substantially flat surface (18) scanned by an optical sensor (14) of a relative position determinator, for use with a light source (20), comprising (see Figure 3 or 4): regions of first reflectance (background or white speckles) that reflect light beams from the light source in the form of a first set of reflected light beams; and regions of a second reflectance (spots or dark speckles), less reflective than the regions of the first reflectance, that reflect light beams from the light source in the form of a second set of reflected light beams, the first set of reflected light beams and the second set of reflected light beams together forming an image used by the relative position determinator to detect changes in the position of the optical sensor relative to the surface, and wherein the regions of a first reflectance are

Art Unit: 2878

located indiscriminately amidst the regions of a second reflectance. Tullis et al. further disclose (see Figure 4) the regions of the first reflectance are a first color, of high reflectance (white), and the regions of the second reflectance are a second color, of low reflectance (black), darker than the first color. Tullis et al. also disclose (see Figure 4 and 5) the regions of the first color are sized to be detectable by the optical sensor.

Allowable Subject Matter

5. Claims 5-8 and 16-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter: a position determinator and method as claimed, more specifically in combination with the first regions being rotationally symmetric is not disclosed or made obvious by the prior art of record.

Response to Arguments

7. Applicant's arguments with respect to claims 9-12 have been considered but are moot in view of the new ground(s) of rejection.

8. Applicant's arguments with respect to claims 1-4 and 13-15 have been fully considered but they are not persuasive.

Regarding claims 1-4 and 13-15, Applicant asserts that Brueck et al. do not disclose forming an image with only reflected light from the first region or first group of regions. Examiner disagrees because the features upon which Applicant relies (i.e., forming an image with only reflected light) are not recited in the rejected claims.

Art Unit: 2878

Further, Figure 3 of Brueck et al. clearly shows forming an image with the reflected light (4) from a first region or first group of regions as claimed. Thus, the claimed invention remains anticipated by Brueck et al. Therefore, as set forth above, this rejection is proper.

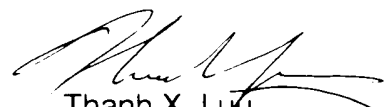
Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh X. Luu whose telephone number is (703) 305-0539. The examiner can normally be reached on Monday-Friday from 6:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta, can be reached on (703) 308-4852. The fax phone number for the organization where the application or proceeding is assigned is (703) 308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

txl
July 11, 2003


Thanh X. Luu
Patent Examiner